



RURAL DISTRICT OF CHAILEY

ANNUAL REPORT OF THE

MEDICAL OFFICER OF HEALTH

for the year ending

31st December, 1945.

by

G.M. DAVIDSON LOBBAN.

M.B., Ch.B., D.P.H.

Fell. R.S.I.

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Public Health Department,
Town Hall,
Lewes, Sussex.

28th October, 1946.

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To the Chairman and Members of the

CHAILEY RURAL DISTRICT COUNCIL.

My Lord, Ladies and Gentlemen,

I beg to present the Annual Report for the year 1945 of the Medical Officer of Health of the Rural District of Chailey.

This Report, in accordance with the requirements of Circular 28/46 of the Ministry of Health, is compiled in abbreviated form as were all Annual Reports of the Medical Officer of Health during the war years.

The estimated population figure for the year under review is 17,320. This figure is calculated by the Registrar General on the assumption that the movement of the population is likely to continue to follow the same general course that it has followed in the past. In inter-censal years, all rates based upon the population, such as birth rates, death rates, etc., are obtained by calculating the numbers of births, the numbers of deaths, etc., with the estimated population figures. As a census is usually taken every ten years, the estimated population figures have to be used in such calculations in inter-censal years.

The census figure for the population of the Chailey District in 1931 was 14,033. Since 1931 the Rural District was reformed in 1934, and an estimated figure for the new population was given as 16,167. There are good grounds for believing that the population figure for the District for 1945 is in excess of the estimated population figure of 17,320 given for that year. New residents have come into the area, some old residents have returned, and there has been a return of Chailey District ex-service men and women. A more exact calculation of the population could be obtained from the ration book figure which, so far, is being withheld from general publication.

Comparing the estimated population figure for 1945 of 17,320 with the estimated population figure of 16,167 for 1934, this shows an increase of slightly over 7% of the 1934 figure. This is not a large increase in eleven years. The recent population figure for your District is far from approaching a more or less stable figure, as there would be still a return of old residents and Chailey District ex-servicemen and women to reckon with.

Nevertheless, it appears that the population has been added to more by the return of ex-residents or by new residents, mostly retired or semi-retired people having immigrated to the District, rather than by a natural increase or replacement, i.e., by births. This is borne out by tables given in a later part of this Report. In these tables it can be readily seen that in eight out of twelve recent years the deaths exceeded the births. At first glance this does not appear to be a very healthy state of affairs from a population standpoint. It must be remembered, however, that the population of the District received a "boost" by the addition of new residents from time to time.

The Chailey Rural District is a large one in area, and to take a balanced view, there is plenty of room both for the older age groups and for the younger age groups.

As to the many advantages of the District, one can mention a few. The mean annual temperature is between 50° and 51° Fahrenheit, as against the mean annual temperature of Great Britain ranging from a little over 46° Fahrenheit in the North of Scotland to $52\frac{1}{2}^{\circ}$ Fahrenheit in the Scilly Isles. The Chailey area, from its southerly position, received more heat from the sun than more northerly districts. Also the warm waters of the English Channel affect the temperature less than waters adjacent to many other districts elsewhere in the country. The Gulf Stream has a beneficial effect upon the District. The rainfall measurement taken over a series of years shows a low annual average of 31 inches. Generally, the climate is mild and dry.

There is a high type of natural beauty in the area with rolling Downs, wooded glades, spacious parklands, woods and commons. Communications by road and rail are good. The rate-poundage is low.

The chief difficulty, as elsewhere in recent years, has been to find sufficient and suitable housing accommodation for some of the present population, and for those who wish to reside in the area on retirement or semi-retirement, and for younger people.

Considering the vital statistics of the area for the year under review, there were 294 deaths in 1945 (16.97 per 1,000 population death rate) as against 220 deaths (13.23 per 1,000 population death rate) in 1944. The majority of the deaths occurred in the older age groups. The chief causes of death were those associated chiefly with old age - heart disease and intracranial vascular lesions. Deaths from cancer came next in the table as regards numbers.

To turn to the younger age groups, the number of births in 1945 was 266 (15.35 per 1,000 birth rate) as against 309 (18.58 per 1,000 birth rate) in 1944. At the end of a war of some duration there is nearly always an increase in the number of births. Despite such an increase in 1944, apparently this has not been kept up in 1945. As already stated in this preface, in eight out of twelve recent years the deaths have exceeded the births. Apart from the artificial restrictions of births due to a variety of reasons, it would appear that young married people are not taking up residence in the Chailey District in any considerable numbers.

A very important index of the social circumstances of an area is given by the Infantile Mortality rate, or the proportion of infants dying under one year of age per 1,000 live births. A long continued high rate is usually associated with one or more of the following factors - overcrowding, defective sanitation and adverse climatic conditions, together with maternal ignorance and neglect. There has not been a long continued high rate for many years in the Chailey District. The Infantile Mortality Rate for the District for 1945 was a low one of 41.35 per 1,000 live births.

There was only one female death due to, or associated with, childbirth or pregnancy in the District during 1945. The Maternal Mortality Rate for the area was 3.75 per 1,000 live births, which is a low one.

Concerning infectious diseases, no case of diphtheria was notified in 1945, with no death from this cause. During the last five years only six cases of diphtheria have been notified in the District. This is a very small number. Ample proof has been given of the efficacy of diphtheria immunisation. Immunisation alone has been almost entirely responsible for the great reduction

in the numbers of diphtheria cases and deaths in recent years. As an effective preventive of the disease, it is unquestioned.

Twenty-four cases of scarlet fever were notified in 1945 with no deaths attributed to this infection. Fourteen of the cases were removed to hospital for treatment on account of bad housing of the patient, inadequate isolation at home, or inability to nurse the patient at home. When possible to do so, it is better to nurse scarlet fever patients at home. By so doing there is less chance of a case returning from hospital having acquired another organism there and then infecting others with an organism, perhaps more infectious and more dangerous than the bacillus which caused the original case of scarlet fever. For many years now scarlet fever has been a mild disease with practically no fatal results.

One hundred and ninety-six cases of measles were notified in 1945 with no deaths from this cause. Two cases were sent to hospital on account of inability to nurse the patients at home. Isolation of measles cases in hospital does not check the outbreak of the disease, since before the rash of measles appears the case has usually infected others. To hospitalise even moderate numbers of measles cases would be impossible as there are neither the hospital accommodation nor the nursing staff available.

Whooping cough was notified in sixteen cases with no deaths. None of the cases was sent to hospital.

The remainder of the infectious diseases cases were: chickenpox 8 cases; pneumonia 2 cases; erysipelas 1 case; acute streptococcal meningitis 1 case; and acute pneumococcal meningitis 1 case. The case of streptococcal meningitis died. The death return of the latter was transferred to another area. A fatal termination also occurred in the case of pneumococcal meningitis. There were no other deaths in the remainder of the infectious diseases cases.

Regarding pulmonary tuberculosis, six cases were notified to the Public Health Department in 1945 as against twenty-two cases in 1944. The average annual number of cases notified in the period 1939 to 1945 was 16.7 whilst the average annual number of cases notified in the period 1934 to 1938 was 19.8. It appears then, that war-time conditions - social, domestic and occupational - have not increased the incidence of pulmonary tuberculosis in your District.

Regarding environmental hygiene, a Housing Survey was commenced in the Chailey Rural District in September 1945, and by the end of the year was well under way. Forms were devised by the Medical Officer of Health, in conjunction with the Chief Sanitary Inspector, to contain comprehensive details of each individual house. The basis of a Domesday Book concerning housing was then formed which should prove of value in long term housing programmes. Repairs to houses under the Housing Acts were carried out in a number of cases. It was found that the issue of Building Licences and the conditions attached thereto mitigated against the work of repairs being carried out. The neglect of property during war years is now having serious consequences. Extension of water mains was carried out in the Parish of Newick and part of the Parish of East Chiltington during the year. Many new connections to the main water supply were made, a considerable number of which were to cottages which had inadequate or unfit supplies. There were no extensions of sewers during the year, although one length of sewer was relaid at Kingston owing to damage caused by tree roots to the old system.

There was a larger quantity of food voluntarily surrendered and condemned as unfit for human consumption than normally found in pre-war years, due to bad storage in the majority of cases.

Of the many samples of milk taken for examination, it is gratifying to report that only one sample was found deficient in fat with added water. The remainder of the samples were found to be satisfactory.

The war ended but a short time ago, and in reviewing 1945 one remembers that towards the end of that year we commenced a period of readjustment after events which quickly faded in significance.

To sum up, the health of the general population was well maintained during the year. The numbers of cases of infectious diseases were few. There was no outbreak of dangerous infectious disease. The social, domestic and occupational changes brought about by the war did not increase the incidence of, or mortality from, pulmonary tuberculosis. The Infantile and Maternal Mortality Rates were low ones. The neglect of property during war-time was very evident. In spite of difficulties as regards the supply of materials and labour, constant and steady progress was made throughout the year in many directions, notably in the connection of houses to the main water supply, and in the extension of water mains. There was a great demand for new houses, but frustration was felt by the many restrictions and shortages. A very satisfactory feature was the large number of informal notices complied with, and the small number of statutory notices which had to be issued regarding nuisances, repairs, etc.

One thing has been very noticeable during 1945, and especially towards the end of that year, and that has been that the strains and stresses of war have had certain effects on the nervous health of the community. Although the physical health was well maintained, there appeared to be a certain apathy amongst certain members. No doubt this was due to the tension caused by war-time and immediate post-war conditions, to the absence of a generous, and, still more, of a more varied diet. The many frustrations caused by shortages of all kinds - of houses, of foods and materials necessary for normal living - have all had their cumulative effects.

One fact remains clear, and that is, that the optimum physical and mental well-being of the general population cannot be attained under a regime of long continued, vexatious, and multitudinous restrictions.

In conclusion, I wish to thank the Chairman and all the Members of the Health and Housing Committee for the encouragement and help I have received throughout the year. I am also grateful for the ready and unfailing collaboration always afforded to me by the Clerk of the Council, Mr. Perkins, by the Surveyor, Mr. Cheale, and by other officials. My thanks are also due to the staff of the Public Health Department who have worked with zeal, purpose and loyalty in a difficult year of readjustment.

I am,
My Lord, Ladies and Gentlemen,
Your obedient Servant,

G.M. DAVIDSON LOBBAN.
M.B., Ch.B., D.P.H.
Fell. R.S.I.
Fell. R.I.P.H. etc.

Medical Officer of Health.

SECTION I

STATISTICS OF THE AREA FOR 1945

Area (in acres)	...	...	...	...	66,014
Population	...	...	...	...	17,320
Number of inhabited houses	...	...	...	...	5,942
Rateable Value (estimated)	...	...	...	...	£146,050
Sum represented by Penny Rate	...	...	...	...	£580

EXTRACTS FROM VITAL STATISTICS

	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Rate per 1,000</u> <u>population</u>
Live Births				
Legitimate	127	108	225	
Illegitimate	19	12	31	
			<u>266</u>	15.35
Deaths	136	158	294	16.97
				<u>Rate per 1,000</u> <u>Live Births</u>
Number of women dying in, or in consequence of childbirth			1	3.75
Deaths of Infants under 1 year of age (usually spoken of as the Infantile Mortality Rate)			11	41.35

BIRTH RATE

The birth rate in Chailey for the year under review was 15.35 per 1,000 population. The average annual rate for the years 1940 to 1944 was 15.77 per 1,000 population and for the years 1935 to 1939 it was 11.63 per 1,000 population.

The birth rate has been progressively decreasing in this country during the last seventy years. It has been evident to most that there has been an increasing proportion of old people in the population during the last few decades. This fact has not been lost upon business people concerned with industries and trades catering for the ageing and the aged. The publishing trade increased their output, since old people like to read. Clothing manufacturers have supplied more materials giving warmth, durability, and conservative styles. Dealers in easy chairs and wireless sets have flourished. Land and property in residential areas have increased in value. There appeared to be a contraction of the more robust games.

It is obvious that we are becoming a nation of old people, as we certainly are, due to the decline in the birth rate, and to the prolongation of life, a smaller proportion of young people will have inevitably to support a great number of the aged - almost a dying nation in fact.

There now appears to be generally a swing in favour of an increased birth rate. Whether this is due to a renewal of family life occasioned by insecurity and people withdrawing more into their own homes, or to pure recklessness, borne of insecurity and doubt, is not clear. Towards, or at the end of, a war of some years' duration there is nearly always a greater replacement of human stock. Psychological and emotional disturbances tend to a reversion to family life. It appears that the present increase in

the number of births is of a temporary nature. There has been a deliberate artificial restriction of births for practical and economic reasons in the past.

In war years there have been higher wages awarded to certain sections of the community, and this has had some effect in ultimately producing a larger birth rate despite the controlled supplies of clothing, food, and other means of subsistence. Also, a large number of marriages of young men and women in the Forces have taken place.

It is clear that if wages come down the cost of living will have to come down with them. This includes the costs of all food and materials necessary for present day life. The severe strain to which some classes of the community have been subjected, such as occasioned by higher taxation, will have to be removed before any hope can be perceived, and they undertake the raising of a family.

There are many legal, social, and economic reforms which are overdue, and which have a great bearing upon an increased birth rate in this country. To mention but a few, there are the cuts in the continued rationing of the nation's food supply; the withholding of labour for agriculture, and for the distribution of food; various rings which keep up food prices and prices of materials; the expensive methods of distribution of food stuffs and materials necessary for subsistence; shortage of houses; high rents in some cases, and high prices of houses; restrictions in tenancy agreements to the exclusion of children; expensive education, and many other restrictive factors militating against the upbringing of a family.

Despite all these deterrents there has been, as I have stated earlier, a temporary swing over in favour of an increased birth rate. One could speculate upon how much more the increase would have been if conditions, such as shortage of housing accommodation, lack of furnishing and household equipment, diminished supplies of clothing, and of woollen and cotton materials, and high taxation - all factors limiting an increase - were removed.

It is obvious that to regain our place as a premier exporting nation, we will have to work extremely hard. Young people will be required to make good the wastages of war in life, material, and wealth. Foreign investments returning over three hundred million pounds annually to this country, which offset a large percentage of our imports, have gone. Prudence and industry over many years created the vast capital required for such a dividend which made the cost of living cheap before the war. It is clear then that only prudence and industry can bring back conditions akin to those of the pre-war period.

Any propaganda as to easy living without working which does not take into account hard facts, is misleading and may be fertile in future unrest and defeat its own end & security - since unrest will bring insecurity.

Nevertheless, it seems paradoxical that in the recent past we have been striving to produce plenty so that there should be no want of certain essentials for a full and contented life. Instead of plenty, poverty of these essentials has been too evident. One cannot say that domination of our lives by the machine has made us happier. I am certain that the average man or woman in this country is more contented to receive money which he or she has justly earned by their own work or endeavour. Moreover, self respect is so retained. A life of dull monotonous ease depending upon the State for nearly everything would be resented by most.

Whilst bearing in mind the very important fact that there has been a progressive decline in the birth rate in this country over many years, it may be of interest to compare the temporary increase in the numbers of births in some war years with the numbers of births in pre-war years in the Rural District of Chailey. By such comparison a more simple perspective is given than if one compares the annual birth rates of those years.

Of much more significance, the growth of the population in its chief aspect in the District in a given period can be given if the annual numbers of births and the annual numbers of deaths are stated within defined periods and a simple calculation is made for each year of the birth-death ratio, i.e., $100 \times \frac{\text{births}}{\text{deaths}}$ and the results shown.

These results are called the vital indices. The vital indices are so used to designate that measure of a population's condition given by the ratio of births to deaths within a given time, and they may be fairly said to furnish a more adequate picture of the net biologic state of a population as a whole than any other statistical figure.

If the vital index, or the ratio $100 \times \frac{\text{births}}{\text{deaths}}$ is greater than 100, the population is growing, and in so far it is in a healthy condition. If it is less than 100, the population is biologically, not holding its own.

The pre-war years 1934 to 1939 are taken in the first table given hereunder:-

<u>Year</u>	<u>Numbers of births</u>	<u>Numbers of deaths</u>	<u>Ratio 100 x $\frac{\text{births}}{\text{deaths}}$</u>
1934	210	229	91.7
1935	189	211	89.5
1936	186	219	84.9
1937	207	184	112.5
1938	203	213	95.3
1939	214	330	64.8

From the above table it can be seen that, with the exception of the year 1937, the ratios, or vital indices, are all below 100. Unless the births exceed the deaths, so that the vital indices are above 100, the population cannot be held to be in a progressive and healthy state. Fundamentally and innately, the condition as revealed in the years 1934 to 1939 as a whole cannot be held to be a sound one from a biologic point of view. Moreover, in this period there was not a sufficient immigration of new residents at the younger ages into the District to make up for the deficiencies of births.

Now, taking the war years 1940 to 1945, and giving the numbers of births, the numbers of deaths, and the vital indices for each year are as under:-

<u>Year</u>	<u>Numbers of births</u>	<u>Numbers of deaths</u>	<u>Ratio 100 x $\frac{\text{births}}{\text{deaths}}$</u>
1940	243	250	97.2
1941	231	233	99.1
1942	296	257	115.1
1943	306	231	132.4
1944	309	220	140.4
1945	266	294	90.4

It will be seen that in the three years 1942, 1943 and 1944 the vital indices are above 100, whilst in the years 1940, 1941

and 1945 the vital indices are below 100. Although the results shown in the 1940 to 1945 table are better on the whole than those shown in the 1934 to 1939 table, generally, it cannot be claimed that a healthy state of affairs regarding a young and expanding population exists.

The birth-death ratio is a highly sensitive measure of the immediate biologic state in the evolutionary sense of a population or group of people.

One can adduce that the population of the Chailey Rural District is kept up rather by new residents coming to live in the District than by replacements, i.e., by births.

A really healthy condition as regards a young expanding population can only be maintained if the annual numbers of births are almost constantly greater than the annual numbers of deaths.

DEATH RATE

The annual crude death rate in the Rural District of Chailey for 1945 was 16.97 per 1,000 population. In all there were 294 deaths in the year as follows:-

	<u>Male</u>	<u>Female</u>
Heart Disease	43	61
Intra-Cranial Vascular Lesions	20	24
Cancer, Malignant Disease	18	21
Pneumonia	7	8
Tuberculosis of Respiratory System	7	3
Other Diseases of the Circulatory System	3	5
Other Digestive Disorders	5	3
Bronchitis	3	4
Diabetes	0	4
Nephritis	3	1
Congenital Malformation; Birth Injuries:		
Infantile Diseases	3	1
Other Forms of Tuberculosis	1	2
Other Violent Causes	2	1
Influenza	1	1
Other Respiratory Diseases	0	2
Ulcer of the Stomach or Duodenum	2	0
Diarrhoea under 2 years	1	1
Syphilitic Disease	0	1
Appendicitis	0	1
Other Maternal Causes	0	1
Premature Birth	0	1
Suicide	0	1
Road Traffic Accidents	1	0
All other Causes	16	11
	<u>136</u>	<u>158</u>

Of all the causes, deaths from heart disease took premier place with 104. Intra-cranial vascular lesions took next place as a killing disease with 44 deaths. This was followed by deaths from cancer (39). Then came deaths from pneumonia (15); pulmonary tuberculosis (10); other diseases of the circulatory system (8); other digestive disorders (8); bronchitis (7); diabetes (4); nephritis (4); congenital deformities at birth, birth injuries, etc., (4); other forms of tuberculosis (3); other violent causes (3); influenza (2); other respiratory diseases (2); ulcer of the stomach or duodenum (2); diarrhoea under 2 years (2); syphilitic

disease (1); appendicitis (1); other maternal causes (1); premature birth (1); suicide (1); road traffic accidents (1); deaths from all other causes not specifically mentioned above numbered 27.

SPECIFIC CAUSES OF DEATH

1. Heart Disease. As in former years heart disease caused the largest number of deaths in 1945. "Heart disease" is composed of a large number of highly diverse conditions and diseases. From 2% to 2.5% of applicants for life insurance are rejected on account of heart disease. Besides shortening life, heart disease is responsible for much disability and invalidism. Not all heart lesions are fatal. As to the prevalence of heart disease, there is little difference according to occupation, and comprehensive knowledge concerning its prevalence, and different causes is lacking. This points to a good deal of further research being required, especially in view of the leading place heart disease occupies year after year as a cause of death, and as a cause of a great deal of disability.

2. Intra-cranial vascular lesions: took the second place in 1945 as a cause of death. This place is usually occupied by deaths from cancer each year. These vascular lesions are usually cerebral haemorrhages. In some families there is a tendency to degeneration of the blood vessels. These degenerated vessels are then more liable to burst, haemorrhage so produced from the cerebral blood vessels thus cause intra-cranial vascular lesions. Predisposing factors are nephritis, alcoholism, chronic muscular strain and high blood pressure; the latter due to a variety of causes, such as the hypertension of present day life.

3. Cancer. Cancer is a general term covering all malignant tissues of different kinds of cancerous affection. There is some connection between modern conditions of living and the increase of cancer, but the actual cause of cancer has not so far been discovered. It seems clear, however, that chronic irritation may induce cancer in susceptible persons. Thus we have cancer in shale oil workers, bad cancer in chimney sweeps, and in x-ray workers. Many cases of cancer may be cured if treated early enough. The popular misconception that cancer is always a hopeless and incurable disease is not correct. At first cancer appears to be local and, therefore, curable if detected in time and removed.

4. Pneumonia. In your Rural District pneumonia does not rank so high in the list of killing diseases as it does in northern industrial areas, and in congested towns. This disease, the incidence of which is highest in winter and spring, is sometimes associated with influenza. Debilitating conditions predispose towards it.

5. Pulmonary Tuberculosis. The death rate from pulmonary tuberculosis in the Rural District of Chailey for 1945 was 0.508 per 1,000 population. Deaths from this cause have been declining in recent years, whilst the percentage of cures have been increasing, due to the advances in treatment and to the early examination of contacts.

It cannot be too deeply emphasized that a person suffering from tuberculosis in an infectious state is a danger to his own family and to the community at large. All such cases should in their own, and in others', interests undergo treatment at a Sanatorium. A Government Scheme is in existence whereby patients being treated for pulmonary tuberculosis in a sanatorium for an adequate length of time, can receive allowances, and these greatly allay what is perhaps a major anxiety - financial commitments.

In some cases there appears to be a reluctance on the part of contacts of pulmonary tuberculosis cases to be medically examined. The percentage of contacts so examined who reveal tuberculosis is extremely low. In some years it is almost infinitesimal, in others zero. At the worst, to be diagnosed as suffering from pulmonary tuberculosis need no longer be taken as a sentence of death, since the percentage of cures is high.

A COMMON AILMENT

The common cold, from the point of view of loss of time at work, is the most important cause of sickness. It is computed that during the months November to March almost a fifth of the persons exposed to risk suffer from colds.

A cold is the most common ailment; never fatal in itself, it may pave the way for other more serious infections, as pneumonia, or as sinus or ear trouble. Due to its variable manifestations in different persons, it appears that a cold is not a truly clinical entity. Rather it seems that there are a number of different infecting agents causing different effects but all roughly classified under the term "a common cold". Not a great deal is known about the different infecting agents. Some infections are ascribed to a very small virus which can pass through an extremely fine filter.

Undoubtedly colds are transmitted from person to person. It has been noted that individuals who have been isolated from civilization have been free from colds, and infection has occurred as soon as contact with the outside world has been established. At present, the only known proved cause of a cold is a filter passing virus, but it is probable that in the future some of the other causes of colds will be exactly identified.

An individual with a cold is most infectious in the early stages. The infection of other people occurs through coming in contact with spray charged with the germs which escape from the infected person during sneezing or even talking. Thus, minute infectious droplets are let loose. The incubation period of colds appears to be one to three days. Amongst individuals susceptibility to colds varies greatly. It has been suggested that a person is more susceptible if the nasal secretion is acid, or if there is a lack of vitamin intake. Exposure, chilling, fatigue, and malnutrition are contributory factors.

Cases of colds should be isolated to avoid infecting others. There is no doubt that a patient with a cold is very infectious during the early and acute stages. In general, the exclusion from school or work for four or five days would not be unreasonable. By longer exclusions from school attendance and work there would be too much interference. To minimise the ill effects of a cold rest in bed is best to accomplish this.

Although it is the commonest ailment, a cold, although thought not much of by the majority, may lead to a more serious complaint.

Vaccines have been used to immunise a person against developing colds. Favourable results have been reported when such vaccines have been administered more or less indiscriminately. Well controlled experiments, however, such as the administration of milk sugar, a substance with no known curative properties - a placebo in fact - to an unsuspecting control group of persons, have shown that the reduction in the incidence of colds in the group where vaccines were used was not substantially greater than in the control group given the innocent substance, milk sugar. Occasionally one finds

an individual who has suffered from repeated colds and has declared great benefit after vaccine treatment. It is likely that the benefit may have arisen, however, not through the treatment but simply after it. A vigorous and healthy body is more ready to withstand the effects of a cold than a sickly and debilitated one. Vitamin tablets, cold baths, and exercise are not of proved value in themselves, but they help to raise the bodily resistance somewhat.

Much more research is required before the different infecting agents and the contributory factors causing colds can be understood. Many diverse conditions are being roughly classified and put under the broad heading of colds at present. Until the actual causative agents and contributory factors are clearly identified, not much further progress in the nature of preventatives and cures can be made. It is only after much successful research in clearing up the exact causes that real progress can be made in the prevention and cure of the commonest of all common ailments - the so-called "common cold".

NOTES ON STATISTICS

Death rates and causes of deaths are useful and necessary when comparing one period with another in a more or less stable population or in comparing the figures in almost identical communities. They also help in research concerning various diseases.

It is more necessary, however, to have full access to statistics concerning the living. Already one can readily see whether the incidences of different notifiable infectious diseases are increased or decreased for certain months or years, as these statistics are available.

Statistics concerning the number of living people suffering from heart disease, cancer, rheumatism, gastric ulcer, kidney disease and other diseases, each of which causes disablement and loss of health and efficiency, are not so readily available to Public Health Administrators, although one can obtain a good deal of this information from National Health Insurance files.

If it is the intention to carry out a national public health scheme for the prevention of disease, such statistics of the living would lead to a closer conception of the extent of the disease, the age, sex, seasonal variations and other factors, such as employment, bearing upon each malady, and thus help materially in research and in the discovery of curatives and, better still, in prevention.

The practical advantage gained by the compilation and use of vital statistics is immense. Public Health matters which were fiercely debated one hundred years ago and on which only a very shrewd and experienced medical man could form an opinion, are now within easy compass.

Birth-rates, Civilian Death-rates, Analysis of Mortality. Maternal Mortality and Case-rates for certain infectious diseases in the year 1945. Provisional figures based on weekly and quarterly returns.

	England and Wales	126 C.Bs. and Great Towns, in- cluding London	148 Smaller Towns: Resi- dent pop: 25,000 to 50,000 at 1931 Census	London Admini- strative County.	Chailey Rural Dis- trict.
* Rates per 1,000 Civilian Population.					
Live Births	16.1 Δ	19.1	19.2	15.7	15.35
Still Births	0.46 ∇	0.58	0.53	0.40	.05
Deaths:-					
All Causes	11.4 ∇	13.5	12.3	13.8	16.97
Typhoid & Paratyphoid	0.00	0.00	0.00	0.00	0.00
Scarlet Fever	0.00	0.00	0.00	0.00	0.00
Whooping Cough	0.02	0.02	0.01	0.02	0.00
Diphtheria	0.02	0.02	0.02	0.01	0.00
Influenza	0.08	0.07	0.07	0.07	0.11
Smallpox	0.00	0.00	0.00	0.00	0.00
Measles	0.02	0.02	0.02	0.01	0.00
Rates per 1,000 Live Births.					
Deaths Under 1 Year of Age	46 Δ	54	43	53	41.35
Deaths from Diarrhoea & Enteritis under 2 years of age	5.6	7.8	4.5	7.6	7.51
Δ signifies per 1,000 related births ∇ signifies per 1,000 total population					
NOTIFICATIONS Rates per 1,000 Civilian Population					
Typhoid Fever	0.01	0.01	0.01	0.01	0.00
Paratyphoid Fever	0.01	0.00	0.01	0.00	0.00
Cerebro Spinal Fever	0.05	0.05	0.05	0.06	0.00
Scarlet Fever	1.89	2.02	2.03	1.57	1.38
Whooping Cough	1.64	1.65	1.47	1.25	0.92
Diphtheria	0.46	0.52	0.56	0.31	0.05
Erysipelas	0.25	0.28	0.24	0.31	0.05
Smallpox	0.00	0.00	0.00	0.00	0.00
Measles	11.57	10.89	11.19	9.03	11.31
Pneumonia	0.87	1.03	0.72	0.78	0.11
Rates per 1,000 Total Births (Live and Still)					
(a) Notifications					
Puerperal Fever	9.93	12.65	8.81	(3.60	0.00
Pyrexia				(15.87 ∇	
(b) Maternal Mortality - England and Wales					
No.140 Abortion With Sepsis	No.141 Abortion Without Sepsis	No.147 Puerperal Infections.	Nos.142-6 148-150 Other	Chailey Rural District	
0.25	0.08	0.24	1.22	3.75	

SECTION II

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA

LABORATORY FACILITIES

- (1) Clinical Research Association, for swabs, sputa, examinations, etc.
- (2) R.F. Wright Esq. Wraysbury, Offham Road, Lewes, for milk and water samples.

AMBULANCE FACILITIES

- (a) For Infectious Diseases: Under agreement a motor ambulance is provided by the Lewes, Newhaven & Seaford Joint Hospital Board for the transport of cases of infectious diseases.
- (b) For Non-Infectious Diseases: The St. John Ambulance Brigade provides two motor ambulances for the removal of accident cases and cases of illness requiring hospital treatment.
- (c) For Tuberculous Cases: Facilities for transport of patients by motor ambulance are provided by the East Sussex County Council.

NURSING IN THE HOME

Home Nursing is carried out by the East Sussex County Nursing Federation through the District Nursing Associations.

CLINICS AND TREATMENT CENTRES

- | | | | |
|-----|---|--------|------------|
| (1) | Light Clinic, Castlegate House, Lewes.. | ... | (E.S.C.C.) |
| (2) | Orthopaedic Clinic, ditto. | ... .. | (E.S.C.C.) |
| (3) | Tuberculosis Clinic, ditto. | ... .. | (E.S.C.C.) |

HOSPITALS

- | | | | | |
|-----|------------------------------------|---|-----|-------------------------|
| (1) | <u>Fever:</u> | Chailey Isolation Hospital | ... | (Chailey R.D.C) |
| (2) | <u>Smallpox:</u> | Sedgbrook Hospital, Plumpton | ... | (District
Committee) |
| (3) | <u>Tuberculosis:</u> | Darvell Hall Sanatorium | | (E.S.C.C.) |
| (4) | <u>Non-Infectious
Illness:</u> | Royal Sussex County Hospital,
Brighton, etc. | | (Voluntary) |

POOR LAW MEDICAL AID RELIEF

The arrangements in operation for the provision of medical assistance for those in poor circumstances are made by the East Sussex County Council.

INSTITUTIONAL PROVISION FOR THE CARE OF MENTAL DEFECTIVES

The East Sussex Mental Hospitals Board deal with the Lunacy and Mental Deficiency services.

S E C T I O N III.

REPORT OF THE CHIEF SANITARY INSPECTOR.

WATER SUPPLY.

Water Undertakers supplying various parts of the area are:-

Chailey Rural District Council,
Brighton County Borough,
Lewes Borough,
Newhaven & Seaford Water Co.,
Burgess Hill Water Co.,
Mid-Sussex Joint Water Board.

Each of these Water Undertakings carry out their own sampling and copies of the analyses are forwarded to me.

During the year the water supplied to the several areas has been satisfactory (a) in quality and (b) in quantity.

Copies of typical bacteriological and chemical examination of the water supplied by the Chailey Rural District Council are as follows:-

"The sample (taken from a Standpipe at the Offham Water Works in May, 1945) on arrival had the following characteristics and gave the appended results on bacteriological examination:

Colour ...	...	...	None
Smell ...	...	...	None
Sediment	A mere trace of organic debris.		

The organisms per ml. which grew on Nutrient Agar in three days at 22° C. under aerobic conditions and were visible to the naked eye as colonies numbered 1.

On Agar at blood temperature and under aerobic conditions 0 colonies were noticed after two days' incubation.

Probable number of Coli. Aerogenes organisms in 100 ml. of the original water ... 0 ...

REPORT

Both chemically and bacteriologically this is a good water and I am of the opinion that it is perfectly safe for drinking purposes.

CHEMICAL ANALYSIS

Sample labelled - Offham. Standpipe at Pumphouse - taken in May, 1945.

The water on arrival had the following characteristics:-

Colour ...	...	...	None
Smell ...	...	...	None
Sediment	A mere trace of organic debris.		

Chemical Analysis afforded the following:-

	<u>Grains</u> <u>per gallon</u>	<u>Parts</u> <u>per million</u>
Total solids (dried at 100° C)	24.4	
Solids (after ignition)	18.8	
Chlorine	1.6	
Ammonia (free) .....		.024
Ammonia (albuminoid) .....		.042
Oxygen taken from permanganate in $\frac{1}{4}$ hour	Nil	
Oxygen taken from permanganate in 4 hours	Nil	
Nitrogen as Nitrates and Nitrites .....	.11	
Nitrites	Nil	
Hardness (total)	12.1	
Hardness (after boiling)	4.6	
Phosphates	Nil	
Metallic Impurity	Iron .01	
PH	7.4	

REPORT

Organically this is a good water and judging by the results of the chemical analysis I am of the opinion that it is perfectly safe for drinking purposes.

Free chlorine could not be detected.

R.F. WRIGHT,
Analyst".

Similar information is given in Annual Reports of the Medical Officers of Health for the principle areas of supply of these Undertakers. It is, therefore, not proposed to set out those results of analysis here.

No intimation has been forthcoming that any of these waters are plumbo-solvent.

No form of contamination has occurred.

During the year the Council extended their own water mains some 500 yards to serve a part of the Parish of Newick and part of the Parish of East Chiltington.

There were 117 new connections made during the year and a considerable number of which were to cottages known to have inadequate or unfit supplies. Constant and steady progress is maintained in this direction. A very close liaison is maintained between the Public Health Department and the Water Engineer.

A Formal Notice under Section 138 of the Public Health Act, was served upon the owner of a group of five cottages. The owner appealed against the Notice and accordingly a public enquiry was held by the Ministry of Health. Before the result of the appeal was made known, however, the five cottages were connected to the Council's main by the owner.

During the year 23 samples of water were taken.

DRAINAGE AND SEWERAGE

There have been no extensions of Sewers during the year. One length of sewer has been relaid at Kingston owing to damage caused by roots.

A report and estimate for the provision of a new sewer and sewage disposal works at Offham was presented to the Council. The recommendation was adopted.

Further reports on the position in connection with sewers and sewage disposal were commenced during the year in anticipation of a review of the whole of the Council's area in 1946.

It has become obvious for some long time that in order to meet the requirements of the district, the two main schemes proposed before the war, namely the Ditchling and neighbouring Parishes scheme and the Kingston and neighbouring Parishes scheme must be put in hand at the earliest possible moment. The large scheme, including Peacehaven, is none the less urgent, but owing to its size, this will take more time to carry out.

The extension of some existing sewers and the provision of sewage schemes for other parishes are only slightly less urgent.

RIVERS AND STREAMS

Wherever pollution of a stream is found to exist, the necessary steps to eliminate the pollution are taken.

CLOSET ACCOMMODATION

Pail closets predominate in cottages occupied by farm workers, but it is pleasing to note that in all proposals for reconditioning submitted in the year under review, a water carriage system is being installed, this will effect the conversion of eighteen pail closets to W.Cs.

PUBLIC CLEANSING

The once-fortnightly collection of house refuse from all parishes continues to operate satisfactorily. The whole question of refuse disposal in the district is now under review, and it is hoped that changes will take place during 1946.

Salvage collection during the year amounted to 72 tons and realised the sum of £560.

GOVERNMENT EVACUATION SCHEME

As a result of the end of hostilities arrangements for the return of evacuees were put in hand and 351 persons were returned to their homes through the official scheme.

HOUSING

Work on the Housing Survey of the Rural District was commenced in September of the year 1945 and by the end of the year was well under way. A comprehensive survey of each individual house is being made. The information is being collected with great care and when the report of the Survey is published, the figures should be of great interest and value and will form the basis of future long term building programmes.

During the year, works of repair under the Housing Acts were carried out to 49 dwellings, including in some instances complete reconditioning. One house was demolished as a result of informal action.

Two cottages were demolished following the making of a demolition order by the Council.

In the case of six other dwellings, undertakings from owners, under Section II of the Housing Act, 1936, were accepted by the Council.

The necessity for the issue of building licences and the conditions attached thereto, mitigate against the works of repair being carried out.

While the tremendous demand for new houses continues, and labour and materials are in such short supply, it will be necessary to continue to restrain from serving notices for the repair of houses under the Housing Act, 1936, as far as practicable.

It is becoming increasingly obvious that the neglect of property during the war years is now having serious consequences.

MILK AND DAIRIES' ORDER

Inspections under the Milk and Dairies' Order, 1926, totalled 309 during the year.

Co-operation between the War Agricultural Executive Committee and the East Sussex County Council was maintained in matters relating to milk production; efforts to avoid duplication of visits were also made.

During the year four cowstalls were completely rebuilt to provide accommodation of the highest standard.

In three instances it was necessary to serve written notices in order to obtain improvement in milking conditions.

FOOD INSPECTION

The following articles of food have been examined and found to be unfit for human consumption:-

Spam	...	...	...	...	5 lbs.
Chopped Ham	...	...	...	...	6 "
Oranges	...	...	...	...	1 $\frac{3}{4}$ cwts.
Pig's head and pluck					
infected with T.B.	...			...	1
Pig's heads and plucks	...			...	2
Loin of pork	...	...	...	...	2 pieces
Cheese	...	...	...	...	8 lbs. 10 ozs.
Tins of corned beef	...			...	36 - 12 oz. tins.
Ditto.	ditto.	...	...	...	2 - 1 lb. "
Ditto.	ditto.	...	...	...	10 - 6 lbs. "
Ditto.	ditto.	...	...	...	3 - 7 lbs. "
Tea	...	...	...	...	9 lbs.
Marmalade	...	...	...	...	16 tins
Marmalade	...	...	...	...	14 lbs.
Bacon	...	...	...	...	26 $\frac{1}{2}$ lbs.
Corned Mutton	...	...	...	...	6 lbs.
Kippers	...	...	...	...	4 stone
Dried Peaches	...	...	...	...	24 $\frac{1}{2}$ lbs.
Butter	...	...	...	...	30 lbs.

Samples under the Food and Drugs Act taken within this District by the Food and Drugs Inspector for the East Sussex County Council:-

Milk	20	...	...	...	Genuine
Other foods	17	...	...	...	Genuine
(Coffee and Chicory, Coffee, Malt Vinegar, Butter, Malted Food, Piccallili, Vegetable Broth, Soya Nut, Meat, Cake Mixture, Barley Crystals, Lambs Tongues, Lemon Squash, Table Desert, Sausage Rolls, Flavouring Essence).					

1 Sample of milk found to be deficient in Fat and Solids not Fat, and to contain at least 12.5% added water; the producer was subsequently prosecuted. The case was dismissed on payment of costs.

1 Producer was prosecuted for Obstruction, and fined.

CESSPOOL EMPTYING SERVICE

This service has been in great demand during the year during which two machines have been operating full time. If the demand for the services of these machines continues to increase, it will be necessary to purchase an additional vehicle in the coming year.

REQUISITIONING

The work of requisitioning of empty properties for the housing of persons inadequately housed has devolved upon the Department. Thirty-seven properties were requisitioned by the end of the year; of these, however, it was only found practicable to retain the requisition on six properties for letting by the Council. In the case of the other thirty-one houses, all were soon occupied to the Council's satisfaction.

SUMMARY OF VISITS AND INSPECTIONS MADE DURING 1945:-

Number of House Inspections under Housing Regulations	...	411
" " Surveys completed	...	337
Other inspections of houses not included above	...	235
Number of visits in connection with Nuisances	...	111
" " to Slaughter Houses, Butchers' Shops	...	70
" " and Food Premises	...	309
" " to Cowstalls and Dairies	...	141
" " re Drainage	...	37
" Drains tested	...	16
" Samples taken for analysis - Milk	...	23
" " " " - Water	...	50
" Visits in connection with Infectious Diseases	...	17
" Rooms fumigated	...	6
" Visits in connection with verminous premises	...	105
" " to Sewage Outfall Works and Sewers	...	38
" " to Refuse Tips	...	11
" " under Petroleum Acts	...	5
" " in connection with Salvage	...	12
" " under Factories and Workshops Acts	...	42
" " in connection with issue of Building Licences and Certificates of Essentiality	...	107
" miscellaneous visits	...	179
" visits under the Government Evacuation Scheme	...	8
" " for Borough of Lewes	...	

Number of visits in connection with requisitioning	...	...	...	88
" " property and re-housing	...	...	...	2
" " for purpose of Food Inspection	...	...	...	52
" " in connection with Water Supply	...	...	...	6
" " Tents, Vans and Sheds	...	...	...	14
" " under Circular 2168	...	...	...	1
" " to Inns and Public Houses	...	...	...

NOTICES

Notices issued	...	...	...	84
Notices complied with	...	...	...	78
Notices outstanding at the end of the				
year	...	...	...	6
Statutory Notices issued	...	...	...	8
Statutory Notices complied with	...	...	...	4

SECTION IV

PREVALENCE AND CONTROL OVER INFECTIOUS AND OTHER DISEASES.

Incidence of Notifiable Infectious Diseases (excluding Tuberculosis) during the year - 1945.			
<u>Disease</u>	<u>Total Cases Notified.</u>	<u>Cases Admitted to Hospital</u>	<u>Total Deaths.</u>
Diphtheria	1	1	Nil
Scarlet Fever	24	14	"
Whooping Cough	16	-	"
Measles	196	2	"
Erysipelas	1	-	"
Pneumonia	2	-	"
Acute Streptococcal Meningitis	1	1	1
Acute Pneumococcal Meningitis	1	-	1
Chickenpox	8	-	Nil

INFECTIOUS DISEASES GENERALLY

1. Scarlet Fever.

There were 24 cases of scarlet fever notified during 1945. None of these cases died. Of the notified cases 14 were removed to hospital for treatment.

Scarlet Fever has become a mild disease in recent years, and it is very rarely that a severe case occurs. The concept regarding scarlet fever has been changed in recent years; the disease is not a clinical entity, it is an acute streptococcal infection of the naso-pharynx. Some cases show a rash and other clinical signs, others do not. In many cases the only symptom is a slight sore throat with no rash and no obvious subsequent peeling. These cases are missed cases of the disease, and they are allowed to mix with other individuals and infect them. Some cases carry infectious organisms in the nose and throat without actually showing any signs or symptoms of the disease, and these are termed "carriers" and act as sources of infection, also. Thus a number of missed cases and "carriers" not having been isolated have been at large and infected susceptible persons with whom they have come into contact.

The old theory that hospital isolation would stamp out the incidence of the disease has been exploded, and there is no evidence to show that it is an important factor in controlling an epidemic.

Where a case of scarlet fever cannot receive proper isolation, medical attention and nursing at home, removal to an Isolation Hospital becomes necessary, as this course often keeps down the incidence of the disease.

2. Diphtheria.

Only one case of diphtheria was notified in 1945, but after observation in hospital this was not confirmed. There was no death

from this cause. In 1935 nine cases were notified. During the last five years only six cases were notified altogether. In recent years, cases of diphtheria have been rare. This is due to almost one thing, and one thing alone - immunisation - consisting of two single injections of immunising fluid into the arm of each child whose parent or guardian was prudent enough and wise enough to have this done.

When one recalls that not so long ago diphtheria was a scourge and responsible for many of the deaths of children of all ages, with two-thirds of the diphtheria deaths occurring in those under five years, and the remaining third in children between five and fifteen years, immunisation can be rightly termed a Godsend.

New generations of children keep arriving through births. Parents and guardians who, through one reason or another, have not had the children under their care immunised yet, are most seriously advised to have the children immunised as soon as possible. The children themselves have very little say in the matter, and it is every child's right to be so protected against such an often-times fatal disease. Some parents and guardians say that some children never get diphtheria, so why worry? Any child may get diphtheria, unless it is effectively immunised.

All parents and guardians who wish to have the children (for whom they are responsible) immunised, should either go to their family doctor to have this done, or make arrangements either by writing or by calling at the Public Health Department, Town Hall, Lewes. Delay is dangerous. Every child should be immunised. By so doing, parents and guardians would save themselves a lot of worry and anxiety, and they would have the solid satisfaction of knowing that the children are protected against a very deadly disease.

3. Measles.

There were 196 cases of measles notified to the Public Health Department in 1945, none of which proved fatal.

This disease is an acute infection of a few days' duration, and is characterised by fever, rash and symptoms referable to the upper respiratory tract. Middle ear infection and pneumonia constitute the chief complications. Pneumonia is responsible for most of the deaths attributable to measles. Less than one per cent of measles cases die from it, although the mortality rate of small children and adults is somewhat higher. The disease is most prevalent in early spring and usually disappears rapidly with summer's advent.

Active cases of the disease form reservoirs of infection and there is no evidence that healthy or convalescent carriers exist. The escape of the infecting organisms is effected through respiratory secretions being expelled by the patient. Individuals are thus infected by breathing in small infected droplets of the secretion propelled into the air by an active case in talking, sneezing and coughing. Generally, communicability ceases by the time the rash appears. By the time the rash has disappeared, communicability or chance of infection of others has certainly ceased, even though the case has developed middle ear disease or pneumonia, both of which are due to other kinds of organisms than the organism responsible for measles itself. There is no evidence that the disease is spread by clothing, water, milk, food or flies.

The proportion of children who have had measles and are, therefore, immune to it, varies with the opportunities for exposure. A higher percentage of children are found in crowded urban areas than in sparsely populated rural areas.

Theoretically isolation of a case of measles is designed to prevent the spread of the disease to others. In practice it serves more to protect the patient against sundry infections which may lead to pneumonia. Rigid isolation at home, where there is a large family, can do little to prevent the spread of measles through the family, as most of the children have already been infected before the rash appears and thus usually before the first case is recognised as measles. Such primary cases are followed by infection of 90 to 100 per cent of the susceptible siblings.

The prevention of pneumonia is the most important measure in measles. This does not reduce the number of cases but it does reduce the number of deaths.

Good nursing care is desirable for all measles cases and is especially important for those of pre-school age. All cases cannot be sent to hospital since during epidemic times, and in years with even moderate outbreaks, there would not be enough beds to cope with the situation.

Passive immunisation against measles, possible only if the child has had a known exposure, may achieve a modification of the disease. This modification apparently confers as lasting a protection as the typical measles infections besides lightening the signs and symptoms, and lessening the chance of contracting complications, such as pneumonia. The chief use of passive immunisation is in dealing with family contacts, especially those under three or five years of age. Active immunisation, or the immunisation of healthy children unexposed to measles infection, which is the introduction of a substance into the body to produce what is termed an "anti-body" in the human tissues to resist the infection, is of doubtful value.

4. Whooping Cough.

In 1945 sixteen cases of whooping cough were notified with no deaths due to this cause.

This disease is an acute infection of the respiratory tract and may last for a period of several weeks to two or three months. Most cases occur during the latter part of the pre-school period - from three to five years.

Formerly deaths were more numerous from this cause but in the last few decades the death rate has declined strikingly. There is no evidence that the disease is any less prevalent than in former years. It is present at all seasons of the year but reaches its peak in the winter. Infection is spread by previous cases.

Many, and perhaps the majority, of the cases show a very mild cough without any "whooping". These "missed cases" constitute a very important part of the reservoir in that they escape detection and circulate freely in the community to infect their fellows. There is no evidence that healthy carriers exist. The escape of the infective organism from the infected person is through the secretion of the upper respiratory tract. The organisms are more readily found in the early weeks of the disease. Isolation and quarantine, which are usually not instituted until the child "whoops", are of little value in preventing spread. Crowding and close association with the patient in the "pre-whoop" period facilitate rapid infection of others.

The seriousness of whooping cough is not due to the infection itself, but to the pneumonia attack sometimes following on the whooping cough infection. The best possible medical and nursing attention should be given to infected children during the first year of life and up to three years of age, since fatal cases are most likely to occur then than at later ages. This does not

exclude the few cases who develop pneumonia at the later ages and who require medical and nursing attention. Over 60% of deaths occur in the first year of life, and over 90% during the first three years. There is no specific serum or vaccine of outstanding value which has been discovered so far for the effective treatment of the disease

5. Other Infectious Diseases.

Of the other infectious diseases, there were chickenpox (8 cases); pneumonia (2 cases); erysipelas (1); acute streptococcal meningitis (1); and acute pneumococcal meningitis (1) - all with no deaths, except in the two cases of meningitis.

SECTION V.

T U B E R C U L O S I S

Of the three cases of pulmonary tuberculosis admitted to hospital during the year 1945, one female was in respect of a notification received prior to the 1st January, 1945.

Among the deaths from pulmonary tuberculosis, one male and one female were notified previous to the 1st January, 1945.

1945 New Cases and Mortality.

Age Periods	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F	M	F	M	F	M	F
0								
1			2	1				2
5				1				
10			2				1	
15			1	2				
20		1	2		2	1		
25	2			1				
35	1		2		1			
45	1					1		
55					1			
65 and Upwards					1	1		
Total	4	1	9	5	5	3	1	2

Five new cases of pulmonary tuberculosis and sixteen new cases of non-pulmonary tuberculosis were notified to the Public Health Department in 1945, as against twenty-two new cases of pulmonary tuberculosis and six new cases of non-pulmonary tuberculosis notified during 1944.

In 1945 there were eight deaths from pulmonary tuberculosis as against two deaths in 1944 and there were three deaths from non-pulmonary tuberculosis in 1945 as against one death in 1944.

Tuberculosis is most frequently found in the lungs although it may attack almost any part of the body. Although the disease is an important cause of death, only a small percentage of those infected die of it. Many persons contract the disease and overcome the infection without any detectable symptoms and are never seen by a medical man. In infants, and occasionally in older persons, tuberculosis may run an acutely fatal course but in most persons it is a long drawn out chronic condition frequently punctuated by remissions.

The disease can be divided into two types - the primary infection and the re-infection.

The primary infection constitutes the initial response of the body to the infection and is usually manifested by a localised process in the lungs, such as a tubercle, or an infected lymph node near, or on the root of the lungs. In many instances this is a benign process, healing by fibrous tissue, encircling the affected part which is often followed by the deposition of lime salts around

that part of the tissue where the affection is, in an attempt to cut off the tubercule bacilli in the part affected and thus prevent further spread.

In some instances the infection in persons experiencing their first exposure to tuberculosis progresses to a generalised involvement, miliary tuberculosis, usually ending with a fatal meningitis.

The re-appearance of the active disease in a person who has successfully combated the primary infection is referred to as the second type, that of re-infection.

The extent of the infection in a community varies with the degree of infection, economic circumstances, the facilities for the segregation of active cases, the discovery and segregation, if infected, of contacts of the active disease.

Due to circumstances obtaining in the Rural District of Chailey, one would not expect a high incidence or a high mortality from tuberculosis, and such is the case. As already pointed out in this Report, the mortality rate over a number of successive years in this area is much less than the mortality rate in an industrial area over the same period.

Non-pulmonary tuberculosis affecting other tissues than the lungs, such as the bones, joints, abdominal glands, etc., causes much crippling and disablement, besides terminating in some cases in a fatal issue. This variation of tuberculous infection is chiefly due to a bovine infection derived from tuberculous cows and spread through milk.

Pulmonary tuberculosis is not common among children, rather it is a disease of adults of earning age and capacity. Adults with the disease still continue to work in an unfit condition. If a wage earner so infected is declared unfit for work by his doctor, the family income is depleted. Unable to work the infected person stays at home and the chances of transmitting the disease to his immediate contacts in the home are thus increased. Legislation, intended as a temporary measure in war-time, to treat early cases of pulmonary tuberculosis and to grant financial allowances, was introduced in 1943. The chief idea behind the scheme was to improve or cure a patient of wage earning age and capacity so that he could resume vital war work. Chronic cases are excluded and so are non-pulmonary cases from the scheme. It is doubtful whether the scheme has been an unqualified success, since with the financial aid granted, the economic circumstances of the family was reduced in most cases.

Prolonged treatment over a considerable period of time of certain cases of bovine tuberculosis, as in some bone and joint lesions, is essential before a remedy is effected. This period may stretch into years. In these cases no financial help under the Government scheme is given to sufferers who undergo treatment and no grant is given for chronic pulmonary tuberculosis cases, although the treatment may last in the aggregate many years. For a public health administrator the scheme has not been an easy one to handle, owing to the dissatisfaction expressed by chronic pulmonary cases and non-pulmonary cases.

Cleanliness, especially around cases, may destroy some of the pulmonary tubercule bacillus. The amount of infection spread through clothing, bedding, books and articles used by the patient is small in comparison with the spread directly from person to person. In pulmonary cases the escape of the bacillus is by the sputum. Better housing may reduce congestion and, therefore, the chance of spread.

The bovine tubercule bacillus is extruded in the cow's nasal and mouth secretions, in cow manure and in the milk. The most important environmental measures, besides the concurrent disinfection in the care of recognised cases, are those in connection with the spread through milk. Heating up to 150° Fahrenheit for 30 minutes, of a medium (such as milk), containing the bovine tubercule bacillus, will kill the bacillus. In order to improve the keeping quality of the milk, it should be immediately cooled to a temperature of not more than 55° Fahrenheit, or boiling the milk and then cooling it rapidly will produce the same effect.

Elimination of the common drinking cup and sanitation of eating utensils in pulmonary cases contribute to lessen spread. Treatment of these cases aims at the prolongation of the patient's life and the prevention of further spread.

Formerly sanatoria were simply rest houses where rest, nourishing food and graduated exercises with medical attention for the relief of symptoms were carried out.

Now treatment is concerned more with surgical procedure for the collapse and thus rest of the affected portions of the lung. Some favourable results have been reported by the use of Calmette-Guerin (B.C.G.) vaccine in conferring resistance to the disease. It has been administered principally to children in homes where known exposure to tuberculosis exists. Further experience with this vaccine is necessary before its true value can be measured.

In the Chailey Rural District the social, domestic and occupational changes brought about by the war do not seem to have increased the incidence of or the mortality from tuberculosis, taking the war years together with the year 1945 into account.

A D D E N D U M

NUTRITION

Diet may make or mar public health, as it may lower the standard of public health in many subtle ways. The modern conception of a good diet is that it must not only satisfy hunger, but it must provide a sufficiency of all the various substances as carbohydrates, proteins and fats to promote and maintain health and vigour. Further, it should supply a sufficiency of vitamins, salts and traces of metals which can only be obtained from a selected assortment of goods, some of which are unfortunately in short supply in many parts of the world today.

The monotonous sameness of the diet of people in this country has been the cause of much of the tiredness, apathy, lethargy, and short temper which has been so evident in recent times. This is omitting to mention the chief sufferer, the harassed housewife, who besides having most of the worry in foraging for the food, being given short supplies of fats and other essentials through rationing, has had to waste valuable hours shopping. The effect on her general health and well-being has been considerable. A good deal of the general unrest in this country, and in others, originates from an insufficient supply of a good, varied and wholesome diet. Health and vigour, the capacity to do a good day's hard work, the absence of irritability, and the feeling of healthy well-being, depend more upon the food we eat than almost anything else. A good varied diet is thus one of the most important things in the world.

From the public health standpoint, the absence of a good varied diet is likely to lower resistance to certain infections. It is unnecessary to point out the importance of diet in the prevention and treatment of rickets, tuberculosis, diabetes, kidney disease, gout, rheumatic affections, gastric ulcer and stomach affections, infantile diarrhoea and other affections, as it is common knowledge. It is true that the best medicine is found in good food rather than in chemists' shops.

In recent times, the knowledge of diet has grown at an amazing rate, and new discoveries regarding food and its effects have followed rapidly one after the other. It is a complex business the modern science of dietetics, and there are many essentials necessary for a complete diet such as amino-acids, mineral elements, vitamins, carbohydrates and fats, and some factors so far undetermined. Most necessary, though modern research concerning diet is, and will be, most people are best served by a generous and varied diet, and by being able to eat what they fancy. How can the diet be made generous and varied? This is a big question at present receiving the close and constant attention of Nutrition Experts of the United Nations.

Since charity and many other worthwhile things begin at home, this country should make the production of food a matter of the highest priority. Agriculture should be put in its rightful place as one of the leading industries in the country. The production of more and better food in this island is an urgent necessity. Concerning the prolonged use of artificial fertilisers in this country, some disquiet is becoming evident. It has been well known for a long time that there is a relationship between the healthiness of the soil, the healthiness of plants, the health of animals feeding upon the plants, and the health of human beings who feed upon the plant and animal products. Some authorities with many years' experience of practical farming, condemn the usage of artificial fertilisers outright as being productive of many ills, such as disease in plants and in cattle, and in decreased yields

of crops. Moreover, these authorities point out, quite rightly, that sewage is being wantonly wasted instead of being mixed with available vegetation of all sorts and kinds and made available to the farmer so that he could return valuable "natural" fertiliser to the land instead of using artificial fertilisers, productive of disease in plants and in animals, and in decreased crop yields. It is a fact that where "natural" fertiliser or "natural" compost is used (in short, humus or "muck"), the health of the farm animals, and of human beings living off the farm produce has attained and maintained a high standard. Some local authorities may think it worth while to make and sell pulverised waste, obtained from sewage. In some cases where the sales of such "natural" fertiliser amount to some thousands of pounds yearly, the consequent lowering of the rates would benefit the community.

The subject of artificial fertilisers versus "natural" fertilisers is such an important one that much research regarding it is being carried out by a strongly sponsored independent body.

Besides the growing of healthy food to provide an adequate and sufficiently varied diet, there are other problems to be faced. These problems relate to the storage and distribution of good food, and the prevention of its waste.

In recent years, science has solved a lot of the problems concerning the storage of food, especially the readily perishable ones. It seems, however, that the present expensive, and often wasteful methods of the distribution of foodstuffs requires overhauling, so that a cheaper and more rational system can be introduced. Despite the pious utterances and writings of politicians and of others, that they would not be, or should not be, parties to the ploughing in, or burning, of cereals and potatoes, and the dumping of unwanted fish back into the sea, this state of affairs still goes on in this and in other countries. Mankind has not yet attained sufficient wisdom.

It would appear to be wise and prudent to preserve foods produced abundantly at some seasons of the year so as to be available at seasons when there is no production. Also, surpluses above the real needs of any local population, or of any country, should be made available for other local populations, or for other countries, in exchange for either other foodstuffs or essential articles and goods of all kinds. The wastage of good food in order to keep the price up, or through lack of adequate storage, preserving, or transport facilities, is a cardinal sin. It cannot be emphasized too much or too often that the lack of a plentiful and varied supply of good food is one of the major causes of a lot of today's unrest. The transport and the processing of food so as to preserve it, is a great deal dependent upon coal production. If we cannot or will not, supply the coal or petrol for transport, we will not obtain a really good varied diet. Likewise, if no coal is available for processing food, we cannot expect a supply in the lean times. Thus the actual coal producer has his part to play as well as the Government. Nothing short of strong legislative measures will ever stop the wanton waste to keep prices up.

It appears to all sensible people who have taken the trouble to really think about the matter at all, that we must depend more and more upon intensified agricultural and improved coal mining efforts, better methods of storage, of distribution, and of transport, with much more preservation of surpluses for some time to come. We cannot go on for ever relying on the generosity of our Dominions, but we must depend chiefly upon our own exertions.